

### **REMARKS**

Reconsideration of the application in light of the following remarks is respectfully requested.

#### **Status of the Claims**

Claims 1-9 and 11-29 are pending. Claims 10, 30 and 31 were previously canceled without prejudice or disclaimer. Claim 1 has been amended. No new matter has been added.

#### **Claim Objections**

Claims 1, 11-18, 21, 22, 28 and 29 are objected to because of having informalities. The Examiner objected to claim 1, presented 1/9/2008, because it did not underline the limitations added to the version of claim 1 that was presented on 5/1/2007. Applicants present herein claim 1 having change markings relative to the version of claim 1 that was presented on 5/1/2007. Applicants note that slightly more text is underlined than what was noted by the Examiner.

Applicants have also amended claims 11-18, 21, 22, 28 and 29 to correct the claim dependency noted by the Examiner. Applicants request that the objection to claims 1, 11-18, 21, 22, 28 and 29 be withdrawn.

#### **Rejection under 35 U.S.C. § 103**

Claims 1-3, 12, 13, 17-24, 26 and 27 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,701,294 to Ward et al. (hereinafter "Ward") in view of U.S. Patent Publication No. 2001/0038630 to Tong et al. (hereinafter "Tong"), and in further view of

U.S. Patent No. 6,064,662 to Gitlin et al. (hereinafter “Gitlin”). The Examiner’s reference to claim 31 is apparently in error since claim 31 was canceled in the amendment of 1/9/2008.

Regarding claims 1 and 22, the Examiner contends that Ward and Tong together disclose all elements recited in claim 1 except the method of communicating the class type of the user to a MAC scheduler. The Examiner further contends that Gitlin discloses scheduling based on the data speed demand of users and medium availability, and that it would be obvious to combine these references with a motivation to perform optimum frequency and time slot allocation based on the associated combination type associated with the user.

Applicants disagree with the Examiner. Claim 1 recites “a ***class type*** ... based upon the ***transmission link quality***” and that “a number of frequency slots assigned ... is based on the ***class type*** of the user” (emphasis added). In contrast, Ward discloses that combination types are identified as “the system's speech coding, channel coding, modulation, and assignable time slots” (col. 3, lines 49-52). Although Ward “monitors” radio channel quality (col. 3, lines 43-44), the assignment itself of the system's speech coding, channel coding, modulation, and assignable time slots is to “optimize ***voice quality*** for the measured conditions” (col. 3, line 49, emphasis added). Ward recognizes that “voice quality” is separate from “radio channel quality” (i.e., a transmission link quality) (*see also* col. 3, lines 42-43). Therefore, Ward does not disclose or suggest using a transmission link quality to determine a class type.

Likewise, neither Gitlin nor Tong disclose a class type based on transmission link quality as recited in claim 1. Rather, Gitlin assigns frequency on the basis of factors such as the amount of medium requested and the amount of medium already allocated to users (col. 4, lines 60-64). Tong assigns resources based on maximizing throughput for a minimum grade of service (par. [0014]). Neither Gitlin nor Tong disclose or suggest using a class type, based on ***transmission link quality***, to assign transmission frequency slots and transmission time slots to the user.

Furthermore, claim 1 recites that the MAC scheduler operates “based on the class type of the user.” Class type depends on transmission link quality (abstract), and the scheduling adaptively responds to transmission link quality (par. [0021]).

In contrast, the Gitlin scheduler has a different method of operation than the MAC scheduler of the present application. Gitlin simply attempts to maximize spectral efficiency (col. 3, lines 1-5). Gitlin does not adaptively respond to transmission link quality. Therefore, it would not be obvious to combine the Gitlin scheduler with Ward and Tong. Furthermore, the Examiner has admitted on p.10 of the Office Action mailed 11/2/2006 that the combined method of Ward and Tong fails to disclose the limitations, including the MAC scheduler, inserted in amended claim 1. Therefore, the MAC scheduler recited in claim 1 is not disclosed or suggested in any combination of Ward, Tong, or Gitlin.

Ward, Tong and Gitlin, either individually or in any combination, do not disclose or suggest all features recited in claim 1, therefore Applicants respectfully submit that claim 1 is allowable at least for this reason.

The remainder of the claims rejected over Ward in view of Tong, and further in view of Gitlin, depend upon base independent claim 1, and are allowable at least by reason of their dependency upon an allowable base claim. Applicants request reconsideration and withdrawal of the rejection of claims 1-3, 12, 13, 17-24, 26 and 27.

Claims 4, 5, 7 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ward in view of Tong and Gitlin, and in further view of U.S. Patent No. 5,134,615 to Freeburg et al. (hereinafter “Freeburg”). These claims depend upon base independent claim 1. Applicants submit above that Ward in view of Tong and Gitlin do not disclose all features recited in claim 1, therefore claims 4, 5, 7 and 8 are allowable at least by reason of their dependency upon an allowable base claim.

Claims 6 and 9 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ward in view of Tong, Gitlin and Freeburg, and in further view of U.S. Patent Publication No. 2005/0059401 to Chen. These claims depend upon base independent claim 1. Applicants submit above that Ward in view of Tong and Gitlin do not disclose all features recited in claim 1, therefore claims 6 and 9 are allowable at least by reason of their dependency upon an allowable base claim.

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Ward in view of Tong and Gitlin, and further view of Chen. This claims depend upon base independent claim 1. Applicants submit above that Ward in view of Tong and Gitlin do not disclose all features recited in claim 1, therefore claim 14 is allowable at least by reason of its dependency upon an allowable base claim.

Claims 11, 15, 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ward in view of Tong and Gitlin, and in further view of Freeburg. These claims depend upon base independent claim 1. Applicants submit above that Ward in view of Tong and Gitlin do not disclose all features recited in claim 1, therefore claims 11, 15 and 16 are allowable at least by reason of their dependency upon an allowable base claim.

Claim 25 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Ward in view of Tong and Gitlin, and in further in view of U.S. Patent No. 5,870,685 to Flynn. This claims depend upon base independent claim 1. Applicants submit above that Ward in view of Tong and Gitlin do not disclose all features recited in claim 1, therefore claim 25 is allowable at least by reason of its dependency upon an allowable base claim.

Claims 28 and 29 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Ward in view of Tong and Gitlin, and in further view of U.S. Patent No. 6,115,390 to Chuah. These claims depend upon base independent claim 1. Applicants submit above that Ward in view of Tong and Gitlin do not disclose all features recited in claim 1, therefore claims 28 and 19 are allowable at least by reason of their dependency upon an allowable base claim.

**CONCLUSION**

Each and every point raised in the Office Action mailed March 27, 2008 has been addressed on the basis of the above remarks. In view of the foregoing it is believed that claims 1-9 and 11-29 are in condition for allowance and it is respectfully requested that the application be reconsidered and that all pending claims be allowed and the case passed to issue.

If there are any other issues remaining which the Examiner believes could be resolved through a Supplemental Response or an Examiner's Amendment, the Examiner is respectfully requested to contact the undersigned at the telephone number indicated below.

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Respectfully submitted,

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